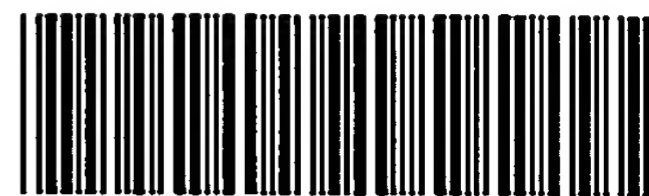


RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/6/6,009A
Source: IFW/b
Date Processed by STIC: 11/29/05

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IFW16

RAW SEQUENCE LISTING

DATE: 11/29/2005

PATENT APPLICATION: US/10/616,009A

TIME: 09:36:35

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Output Set: N:\CRF4\11292005\J616009A.raw

3 <110> APPLICANT: Crooke, Stanley T.
 4 Lima, Walter F.
 5 Wu, Hongjiang
 7 <120> TITLE OF INVENTION: HUMAN RNASE H1 AND OLIGONUCLEOTIDE COMPOSITIONS
 THEREOF
 9 <130> FILE REFERENCE: ISIS-5138
 11 <140> CURRENT APPLICATION NUMBER: US 10/616,009A
 12 <141> CURRENT FILING DATE: 2003-07-08
 14 <150> PRIOR APPLICATION NUMBER: US 09/409,926
 15 <151> PRIOR FILING DATE: 1999-09-30
 17 <160> NUMBER OF SEQ ID NOS: 72
 19 <170> SOFTWARE: PatentIn version 3.3
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 22 <211> LENGTH: 286
 23 <212> TYPE: PRT
 24 <213> ORGANISM: Human
 26 <400> SEQUENCE: 1
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 33 20 25 30
 36 Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala
 37 35 40 45
 40 Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu
 41 50 55 60
 44 Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser
 45 65 70 75 80
 48 Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Pro Gly
 49 85 90 95
 52 Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Gln
 53 100 105 110
 56 Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val
 57 115 120 125
 60 Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr
 61 130 135 140
 64 Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Lys Pro Arg Ala Gly Ile
 65 145 150 155 160
 68 Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu
 69 165 170 175
 72 Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys
 73 180 185 190
 76 Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr
 77 195 200 205
 80 Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly

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89      245      250      255
92 Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu
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97      275      280      285
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108 1      5      10      15
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112      20      25      30
115 Val Tyr Arg Thr Trp Ala Glu Cys Gln Gln Gln Val Asn Arg Phe Pro
116      35      40      45
119 Ser Ala Ser Phe Lys Lys Phe Ala Thr Glu Lys Glu Ala Trp Ala Phe
120      50      55      60
123 Val Gly Ala Gly Pro Pro Asp Gly Gln Gln Ser Ala Pro Ala Glu Thr
124 65      70      75      80
127 His Gly Ala Ser Ala Val Ala Gln Glu Asn Ala Ser His Arg Glu Glu
128      85      90      95
131 Pro Glu Thr Asp Val Leu Cys Cys Asn Ala Cys Lys Arg Pro Tyr Glu
132      100      105      110
135 Gln Ser Thr Asn Glu Glu His Thr Val Arg Arg Ala Lys His Asp Glu
136      115      120      125
139 Glu Gln Ser Thr Pro Val Val Ser Glu Ala Lys Phe Ser Tyr Met Gly
140      130      135      140
143 Glu Phe Ala Val Val Tyr Thr Asp Gly Cys Cys Ser Gly Asn Gly Arg
144 145      150      155      160
147 Asn Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His Pro
148      165      170      175
151 Leu Asn Ile Ser Glu Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg Ala
152      180      185      190
155 Glu Ile His Ala Ala Cys Lys Ala Ile Glu Gln Ala Lys Ser Gln Asn
156      195      200      205
159 Ile Lys Lys Leu Ile Ile Tyr Thr Asp Ser Lys Phe Thr Ile Asn Gly
160      210      215      220
163 Ile Thr Ser Trp Val Glu Asn Trp Lys Thr Asn Gly Trp Arg Thr Ser
164 225      230      235      240
167 Ser Gly Gly Ser Val Ile Asn Lys Glu Asp Phe Gln Lys Leu Asp Ser
168      245      250      255
171 Leu Ser Lys Gly Ile Glu Ile Gln Trp Met His Ile Pro Gly His Ala
172      260      265      270
175 Gly Phe Gln Gly Asn Glu Glu Ala Asp Arg Leu Ala Arg Glu Gly Ala

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Input Set : D:\ISIS-5138.ST25.txt

Output Set: N:\CRF4\11292005\J616009A.raw

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186 <213> ORGANISM: Yeast
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194 Gly Ile Tyr Asn Thr Trp Asn Glu Cys Lys Asn Gln Val Asp Gly Tyr
195          20          25          30
198 Gly Gly Ala Ile Tyr Lys Lys Phe Asn Ser Tyr Glu Gln Ala Lys Ser
199          35          40          45
202 Phe Leu Gly Gln Pro Asn Thr Thr Ser Asn Tyr Gly Ser Ser Thr His
203          50          55          60
206 Ala Gly Gly Gln Val Ser Lys Pro His Thr Thr Gln Lys Arg Val His
207 65          70          75          80
210 Arg Arg Asn Arg Pro Leu His Tyr Ser Ser Leu Thr Ser Ser Ser Ala
211          85          90          95
214 Cys Ser Ser Leu Ser Ser Ala Asn Thr Asn Thr Phe Tyr Ser Val Lys
215          100          105          110
218 Ser Asn Val Pro Asn Ile Glu Ser Lys Ile Phe Asn Asn Trp Lys Asp
219          115          120          125
222 Cys Gln Ala Tyr Val Lys His Lys Arg Gly Ile Thr Phe Lys Lys Phe
223          130          135          140
226 Glu Asp Gln Leu Ala Ala Glu Asn Phe Ile Ser Gly Met Ser Ala His
227 145          150          155          160
230 Asp Tyr Lys Leu Met Asn Ile Ser Lys Glu Ser Phe Glu Ser Lys Tyr
231          165          170          175
234 Lys Leu Ser Ser Asn Thr Met Tyr Asn Lys Ser Met Asn Val Tyr Cys
235          180          185          190
238 Asp Gly Ser Ser Phe Gly Asn Gly Thr Ser Ser Ser Arg Ala Gly Tyr
239          195          200          205
242 Gly Ala Tyr Phe Glu Gly Ala Pro Glu Glu Asn Ile Ser Glu Pro Leu
243          210          215          220
246 Leu Ser Gly Ala Gln Thr Asn Asn Arg Ala Glu Ile Glu Ala Val Ser
247 225          230          235          240
250 Glu Ala Leu Lys Lys Ile Trp Glu Lys Leu Thr Asn Glu Lys Glu Lys
251          245          250          255
254 Val Asn Tyr Gln Ile Lys Thr Asp Ser Glu Tyr Val Thr Lys Leu Leu
255          260          265          270
258 Asn Asp Arg Tyr Met Thr Tyr Asp Asn Lys Lys Leu Glu Gly Leu Pro
259          275          280          285
262 Asn Ser Asp Leu Ile Val Pro Leu Val Gln Arg Phe Val Lys Val Lys
263          290          295          300
266 Lys Tyr Tyr Glu Leu Asn Lys Glu Cys Phe Lys Asn Asn Gly Lys Phe
267 305          310          315          320
270 Gln Ile Glu Trp Val Lys Gly His Asp Gly Asp Pro Gly Asn Glu Met

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275          340          345
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280 <212> TYPE: PRT
281 <213> ORGANISM: E.coli
283 <400> SEQUENCE: 4
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289 Pro Gly Pro Gly Gly Tyr Gly Ala Ile Leu Arg Tyr Arg Gly Arg Glu
290          20          25          30
293 Lys Thr Phe Ser Ala Gly Tyr Thr Arg Thr Thr Asn Asn Arg Met Glu
294          35          40          45
297 Leu Met Ala Ala Ile Val Ala Leu Glu Ala Leu Lys Glu His Cys Glu
298          50          55          60
301 Val Ile Leu Ser Thr Asp Ser Gln Tyr Val Arg Gln Gly Ile Thr Gln
302 65          70          75          80
305 Trp Ile His Asn Trp Lys Lys Arg Gly Trp Lys Thr Ala Asp Lys Lys
306          85          90          95
309 Pro Val Lys Asn Val Asp Leu Trp Gln Arg Leu Asp Ala Ala Leu Gly
310          100          105          110
313 Gln His Gln Ile Lys Trp Glu Trp Val Lys Gly His Ala Gly His Pro
314          115          120          125
317 Glu Asn Glu Arg Cys Asp Glu Leu Ala Arg Ala Ala Ala Met Asn Pro
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321 Thr Leu Glu Asp Thr Gly Tyr Gln Val Glu Val
322 145          150          155
325 <210> SEQ ID NO: 5
326 <211> LENGTH: 216
327 <212> TYPE: PRT
328 <213> ORGANISM: Mouse EST
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337          20          25          30
340 Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu Asp Glu Ala Trp
341          35          40          45
344 Ala Phe Val Arg Ser Ser Ser Ser Pro Asp Gly Ser Lys Gly Gln Glu
345          50          55          60
348 Ser Ala His Glu Gln Lys Ser Gln Ala Lys Thr Ser Lys Arg Pro Arg
349 65          70          75          80
352 Glu Pro Leu Val Val Val Tyr Thr Asp Gly Cys Cys Ser Ser Asn Gly
353          85          90          95
356 Arg Lys Arg Ala Arg Ala Gly Ile Gly Val Tyr Trp Gly Pro Gly His
357          100          105          110
360 Pro Leu Asn Val Arg Ile Arg Leu Pro Gly Arg Gln Thr Asn Gln Arg
361          115          120          125

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Input Set : D:\ISIS-5138.ST25.txt

Output Set: N:\CRF4\11292005\J616009A.raw

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364 Ala Glu Ile His Ala Ala Cys Lys Ala Val Met Gln Ala Lys Ala Gln
365      130                      135                      140
368 Asn Ile Ser Lys Leu Val Leu Tyr Thr Asp Ser Met Phe Thr Ile Asn
369 145                      150                      155                      160
372 Gly Ile Thr Asn Trp Val Gln Gly Trp Lys Lys Asn Gly Trp Arg Thr
373                      165                      170                      175
376 Ser Thr Gly Lys Asp Val Ile Asn Lys Glu Asp Phe Met Glu Leu Asp
377                      180                      185                      190
380 Glu Leu Thr Gln Gly Met Asp Ile Gln Trp Met His Ile Pro Gly His
381                      195                      200                      205
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385      210                      215
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400 <210> SEQ ID NO: 7
401 <211> LENGTH: 28
402 <212> TYPE: DNA
403 <213> ORGANISM: Artificial Sequence
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426 <212> TYPE: DNA
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437 <211> LENGTH: 29
438 <212> TYPE: DNA
439 <213> ORGANISM: Artificial Sequence
441 <220> FEATURE:

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28

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VERIFICATION SUMMARY

DATE: 11/29/2005

PATENT APPLICATION: US/10/616,009A

TIME: 09:36:36

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